

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: STREETWORKS

Report Number: P239945

Luminaire Tested: **UTLD-AF24-90-D-U-T4W-A**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P239945
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1710-388-16)
Test Lab: INNOVATION CENTER(G1)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: UTLD-AF24-90-D-U-T4W-A
Description: TRADITIONAIRE LED DOWNLIGHT LUMINAIRE
(1) 70 CRI, 4000K, 1180mA LIGHT ENGINE WITH 24 LEDS AND TYPE IV WIDE OPTICS AND REFRACTOR PANELS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7217 lumens
Efficiency: N/A
Efficacy: 76.8 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 1.21' x L: 1.21' x H: 0.96')
IES Classification: Type II - Short - Non-Cutoff
BUG Rating: B2 - U4 - G3

Input Watts (W): 94
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT

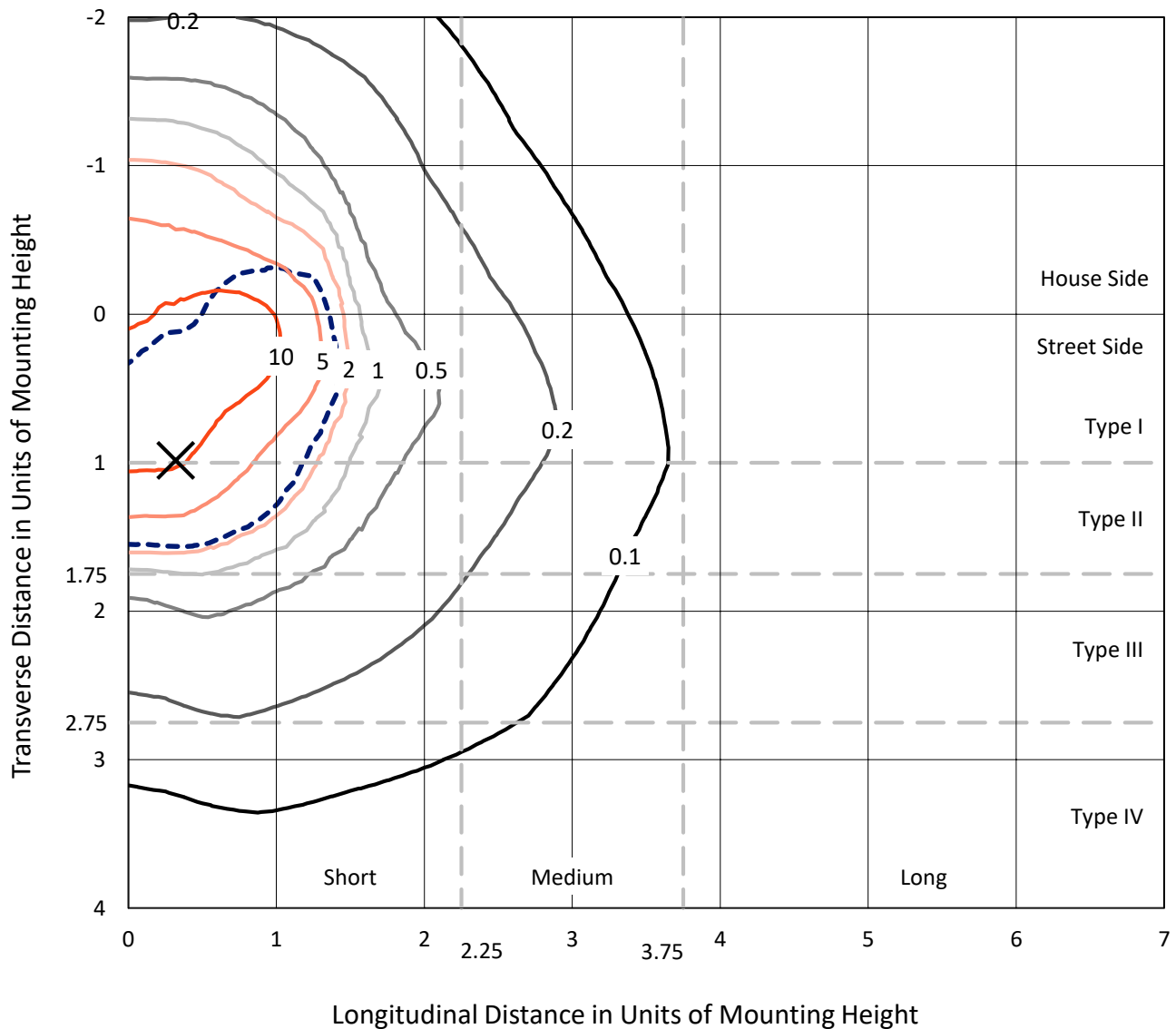


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
- - - 1/2 Max cd

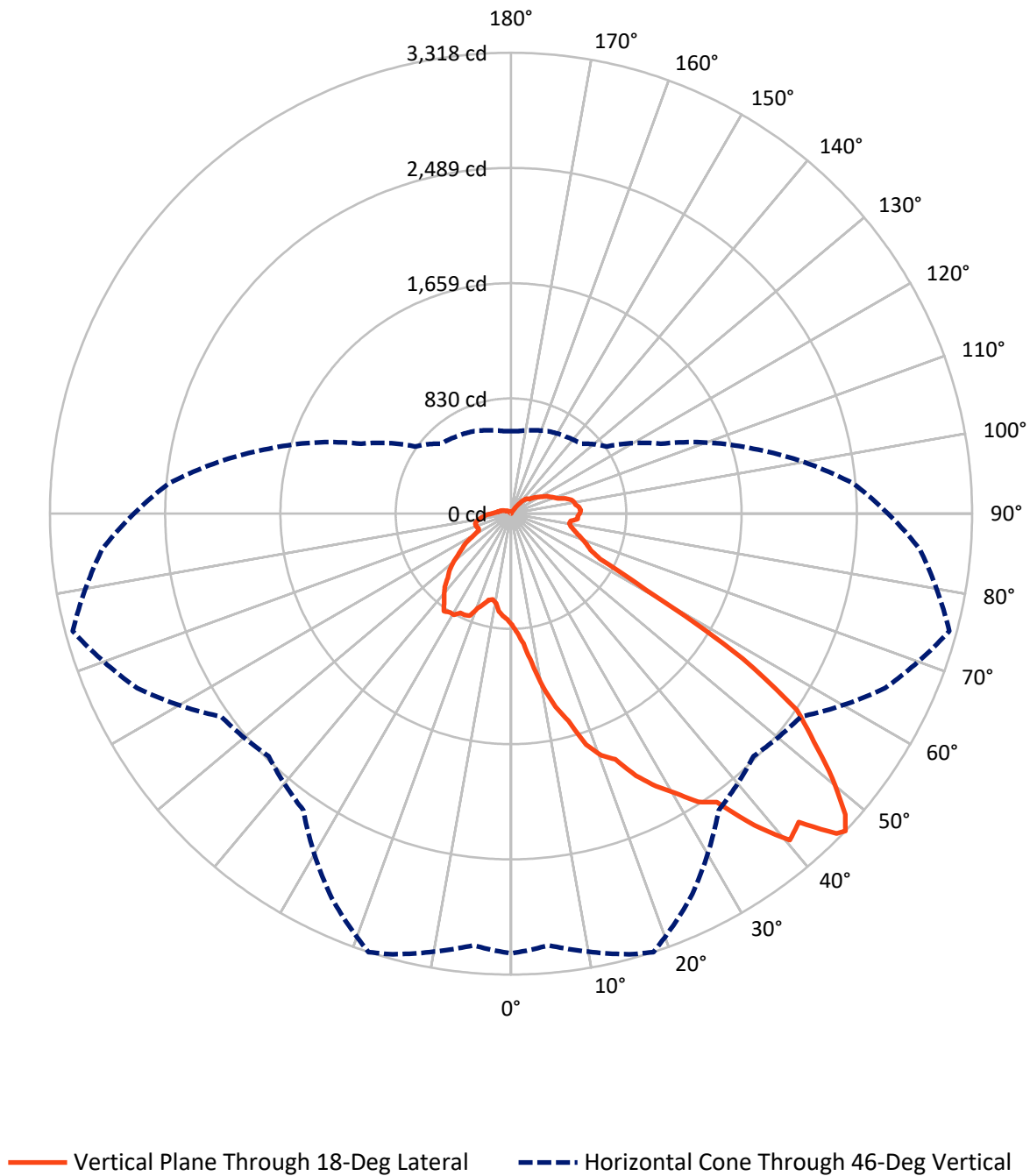


Based on 10 foot mounting height. Maximum calculated value = 17.6 fc
Type II - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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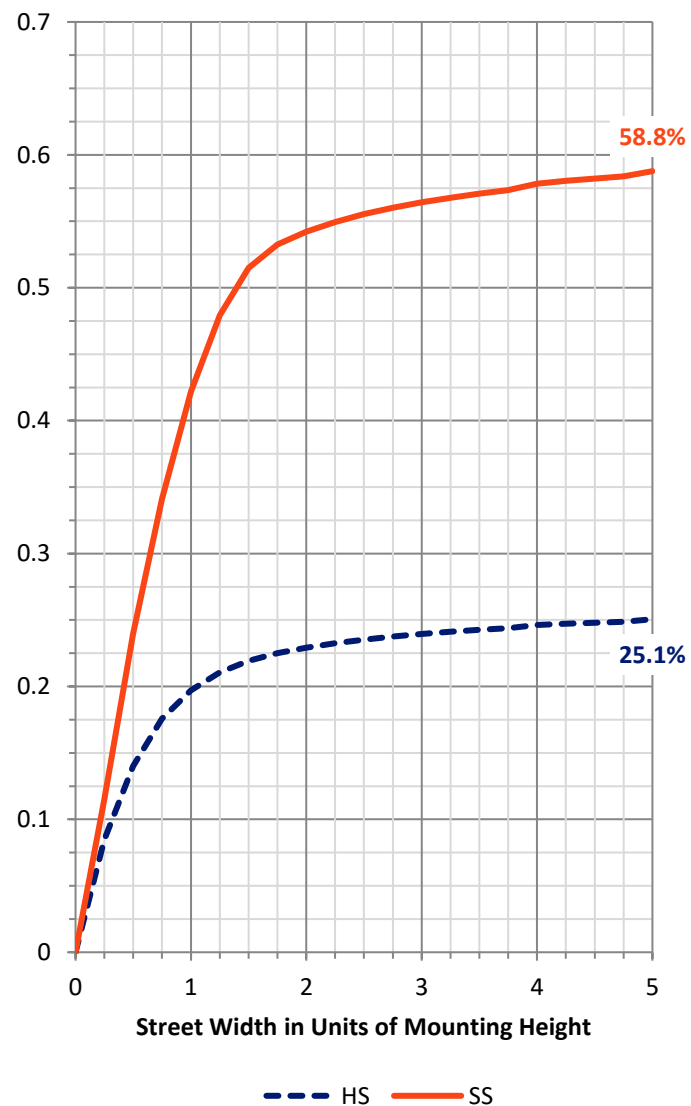
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1877.3	233.7	2111.0
	% Fixture	26.0	3.2	29.3
Street Side	Lumens	4405.3	700.6	5106.0
	% Fixture	61.0	9.7	70.7
Total	Lumens	6282.7	934.4	7217.0
	% Fixture	87.1	12.9	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	85.6	1.2
10°-20°	349.4	4.8
20°-30°	710.6	9.8
30°-40°	1163.3	16.1
40°-50°	1514.1	21.0
50°-60°	1132.9	15.7
60°-70°	471.9	6.5
70°-80°	429.3	5.9
80°-90°	425.6	5.9
90°-100°	342.2	4.7
100°-110°	243.2	3.4
110°-120°	164.4	2.3
120°-130°	105.8	1.5
130°-140°	62.7	0.9
140°-150°	15.2	0.2
150°-160°	0.7	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	6282.7	87.1
0°-180°	7217.0	100.0

Coefficient of Utilization



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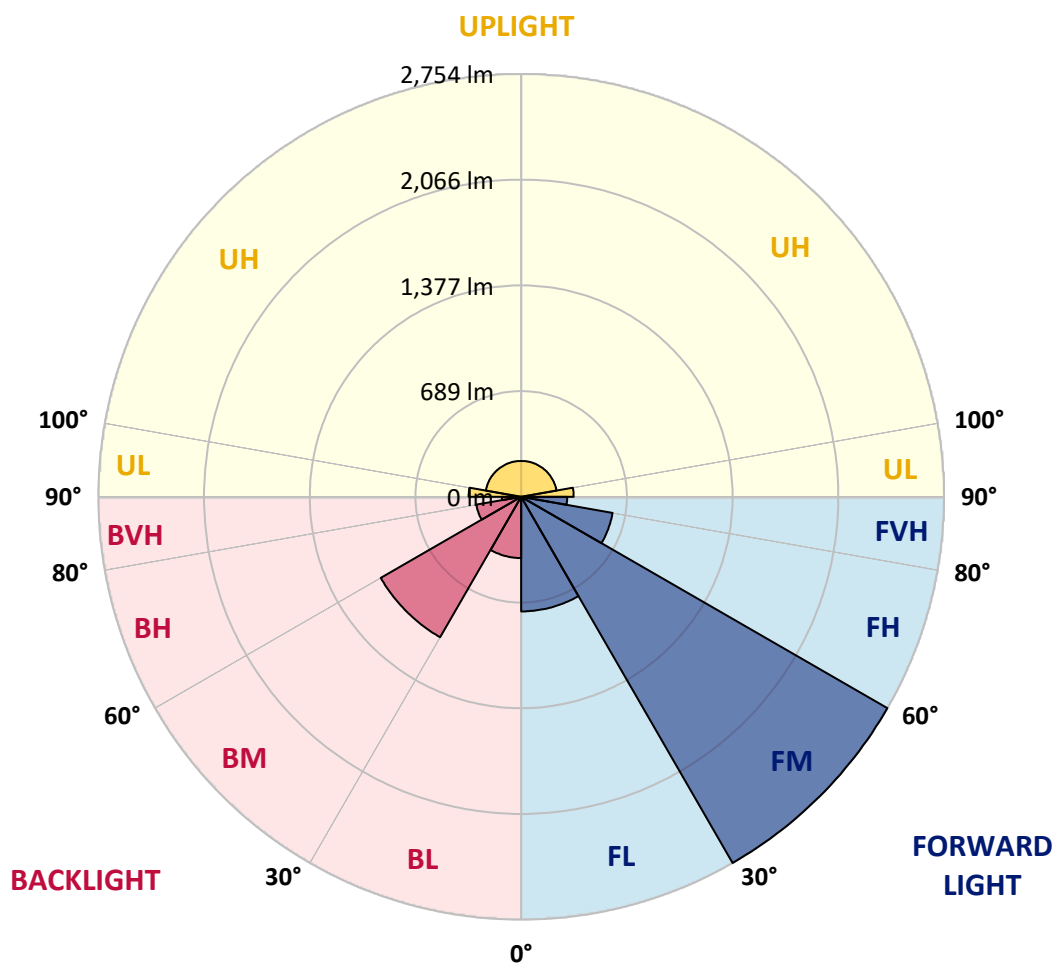
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	746.5	10.3			
FM	(30°-60°)	2754.3	38.2			
FH	(60°-80°)	604.4	8.4			G0/660
FVH	(80°-90°)	300.1	4.2			G3/500
BL	(0°-30°)	399.1	5.5	B1/500		
BM	(30°-60°)	1056.0	14.6	B2/2500		
BH	(60°-80°)	296.7	4.1	B1/500		G1/500
BVH	(80°-90°)	125.5	1.7			G2/225
UL	(90°-100°)	342.2	4.7		U3/500	
UH	(100°-180°)	233.7	3.2		U3/500	

BUG Rating: B2-U4-G3

Type II Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	18°	25°	35°	45°	55°	65°	75°	85°
0°	799.3	799.3	799.3	799.3	799.3	799.3	799.3	799.3	799.3	799.3	799.3
2.5°	859.2	855.2	857.2	857.2	852.2	850.2	845.2	839.3	831.3	822.3	814.3
5°	944.0	941.0	940.1	939.1	938.1	925.1	910.1	897.1	883.2	868.2	847.2
7.5°	1100.7	1099.7	1093.7	1086.7	1076.8	1054.8	1027.9	1014.9	995.9	973.0	941.0
10°	1296.3	1282.3	1269.4	1269.4	1249.4	1241.4	1233.4	1214.5	1202.5	1170.6	1124.7
12.5°	1408.1	1401.1	1428.0	1426.0	1452.0	1498.9	1514.9	1530.8	1458.0	1365.2	1279.3
15°	1512.9	1512.9	1546.8	1547.8	1624.6	1728.4	1807.3	1730.4	1596.7	1447.0	1332.2
17.5°	1656.6	1665.5	1714.4	1747.4	1851.2	2029.8	1975.9	1834.2	1634.6	1456.0	1327.2
20°	1719.4	1739.4	1814.2	1857.1	2017.8	2186.5	2134.6	1967.9	1736.4	1532.8	1403.1
22.5°	1758.4	1772.3	1860.1	1921.0	2126.6	2269.3	2261.3	2092.7	1874.1	1619.6	1470.0
25°	1918.0	1927.0	2026.8	2089.7	2307.2	2353.1	2262.3	2145.5	1931.0	1666.5	1534.8
27.5°	1971.9	1972.9	2126.6	2221.4	2400.0	2384.1	2266.3	2217.4	2108.6	1900.1	1811.2
30°	2044.8	2042.8	2232.4	2334.2	2442.9	2375.1	2280.3	2323.2	2330.2	2160.5	1998.9
32.5°	2134.6	2126.6	2353.1	2474.9	2509.8	2373.1	2303.2	2376.1	2481.9	2306.2	2132.6
35°	2217.4	2224.4	2467.9	2550.7	2583.6	2385.1	2315.2	2474.9	2689.4	2553.7	2262.3
37.5°	2750.3	2742.3	2819.2	2848.1	2765.3	2426.0	2361.1	2597.6	2912.0	2853.1	2540.7
40°	2871.0	2844.1	3073.6	3090.6	2944.9	2570.7	2486.8	2671.5	3087.6	3192.4	2943.9
42.5°	2769.3	2762.3	3012.8	3035.7	2930.9	2668.5	2569.7	2731.3	3107.6	3193.4	2780.2
45°	3217.3	3180.4	3311.1	3284.2	2993.8	2626.6	2518.8	2664.5	3038.7	3279.2	2951.9
46°	3166.4	3119.5	3284.2	3318.1	3053.7	2605.6	2467.9	2546.7	2969.8	3265.2	2953.9
47.5°	3010.8	3014.7	3234.3	3236.3	2992.8	2608.6	2384.1	2475.9	2816.2	3086.6	2671.5
50°	2628.5	2583.6	2984.8	2997.8	2765.3	2495.8	2298.2	2340.1	2664.5	2830.1	2408.0
52.5°	2530.8	2495.8	2732.3	2730.3	2520.8	2324.2	2141.6	2185.5	2551.7	2740.3	2438.9
55°	2325.2	2313.2	2511.8	2494.8	2348.1	2112.6	1981.9	2008.8	2116.6	2042.8	1215.5
57.5°	1544.8	1590.7	1934.0	1966.9	1967.9	1857.1	1693.5	1445.0	1250.4	1063.8	594.8
60°	630.7	683.6	1065.8	1115.7	1188.5	1392.1	1227.5	966.0	807.3	839.3	513.9
62.5°	476.0	496.0	711.5	720.5	748.4	847.2	837.3	700.5	689.6	759.4	492.0
65°	443.1	461.0	630.7	627.7	614.7	641.7	639.7	607.7	619.7	707.5	490.0
67.5°	419.1	437.1	585.8	586.8	575.8	580.8	584.8	568.8	596.8	687.6	503.0
70°	395.2	414.1	538.9	541.9	549.9	567.8	574.8	562.8	587.8	662.6	502.0
72.5°	366.2	387.2	495.0	500.0	515.9	556.8	580.8	577.8	580.8	625.7	500.0
75°	356.3	377.2	458.0	467.0	490.0	551.9	613.7	593.8	573.8	601.8	488.0
77.5°	312.4	336.3	419.1	439.1	490.0	567.8	635.7	628.7	591.8	585.8	475.0
80°	300.4	323.3	403.2	425.1	480.0	581.8	657.6	658.6	639.7	607.7	488.0
82.5°	302.4	324.3	407.2	432.1	495.0	591.8	639.7	664.6	666.6	626.7	503.0
85°	355.3	376.2	455.1	481.0	535.9	588.8	625.7	643.7	661.6	661.6	551.9
87.5°	379.2	398.2	458.0	481.0	533.9	595.8	589.8	619.7	637.7	660.6	568.8
90°	401.2	413.1	475.0	497.0	524.9	574.8	558.8	549.9	564.8	588.8	532.9
92.5°	417.1	428.1	483.0	502.0	525.9	536.9	512.9	487.0	523.9	542.9	496.0
95°	446.1	456.1	485.0	492.0	489.0	499.0	462.0	452.1	468.0	489.0	459.0
97.5°	426.1	433.1	461.0	469.0	467.0	452.1	415.1	409.2	423.1	439.1	406.2
100°	426.1	435.1	456.1	461.0	449.1	411.1	373.2	371.2	380.2	388.2	357.3
102.5°	435.1	439.1	443.1	446.1	424.1	382.2	354.3	347.3	350.3	354.3	326.3
105°	412.1	413.1	415.1	406.2	388.2	356.3	328.3	316.3	326.3	338.3	315.3
107.5°	356.3	355.3	356.3	353.3	351.3	332.3	312.4	297.4	297.4	301.4	279.4



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	18°	25°	35°	45°	55°	65°	75°	85°
110°	332.3	333.3	332.3	332.3	323.3	310.4	291.4	275.4	267.4	269.4	249.5
112.5°	304.4	304.4	305.4	306.4	301.4	289.4	270.4	254.5	244.5	242.5	223.5
115°	304.4	301.4	292.4	291.4	281.4	264.5	250.5	230.5	223.5	223.5	211.6
117.5°	271.4	269.4	262.5	260.5	254.5	240.5	232.5	216.6	211.6	208.6	197.6
120°	240.5	240.5	237.5	236.5	230.5	222.5	205.6	199.6	195.6	199.6	192.6
122.5°	223.5	223.5	218.5	216.6	209.6	203.6	188.6	177.6	170.6	178.6	174.6
125°	205.6	204.6	197.6	196.6	184.6	184.6	176.6	162.7	143.7	151.7	149.7
127.5°	180.6	179.6	170.6	169.6	162.7	170.6	168.7	150.7	124.7	129.7	129.7
130°	173.6	171.6	163.7	161.7	154.7	152.7	160.7	131.7	116.8	121.7	120.7
132.5°	173.6	171.6	161.7	158.7	147.7	136.7	144.7	114.8	111.8	117.8	116.8
135°	156.7	156.7	147.7	141.7	130.7	110.8	112.8	88.8	97.8	106.8	106.8
137.5°	132.7	132.7	123.7	121.7	108.8	88.8	79.8	67.9	82.8	92.8	93.8
140°	103.8	103.8	96.8	92.8	83.8	58.9	36.9	41.9	62.9	71.9	74.8
142.5°	74.8	73.8	67.9	62.9	53.9	31.9	12.0	24.0	36.9	48.9	52.9
145°	51.9	50.9	43.9	40.9	32.9	15.0	3.0	10.0	22.0	28.9	33.9
147.5°	30.9	30.9	25.9	24.9	17.0	4.0	2.0	3.0	11.0	18.0	21.0
150°	18.0	18.0	13.0	10.0	4.0	1.0	1.0	1.0	3.0	8.0	10.0
152.5°	4.0	4.0	3.0	2.0	2.0	1.0	0.0	1.0	1.0	1.0	2.0
155°	2.0	2.0	2.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
157.5°	1.0	1.0	1.0	1.0	1.0	0.0	0.0	1.0	1.0	1.0	1.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0
162.5°	1.0	1.0	0.0	0.0	1.0	0.0	1.0	0.0	1.0	1.0	1.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	799.3	799.3	799.3	799.3	799.3	799.3	799.3	799.3	799.3	799.3	799.3
2.5°	810.3	806.3	797.3	786.4	778.4	771.4	766.4	763.4	761.4	756.4	758.4
5°	840.3	832.3	811.3	794.4	776.4	760.4	748.4	740.5	737.5	733.5	733.5
7.5°	926.1	907.1	875.2	835.3	798.3	766.4	736.5	719.5	704.5	696.6	694.6
10°	1094.7	1069.8	1000.9	919.1	838.3	766.4	708.5	666.6	646.7	639.7	639.7
12.5°	1234.4	1195.5	1105.7	1013.9	906.1	793.4	707.5	650.7	623.7	614.7	614.7
15°	1276.4	1225.5	1119.7	1029.9	933.1	838.3	758.4	676.6	627.7	612.7	607.7
17.5°	1263.4	1213.5	1117.7	1008.9	900.1	829.3	758.4	714.5	669.6	643.7	639.7
20°	1346.2	1300.3	1200.5	1078.8	945.0	786.4	741.5	731.5	720.5	703.5	703.5
22.5°	1415.1	1372.2	1272.4	1141.6	981.0	877.2	810.3	800.3	788.4	785.4	783.4
25°	1468.0	1422.1	1285.3	1134.6	1017.9	942.0	856.2	822.3	793.4	784.4	781.4
27.5°	1750.4	1679.5	1460.0	1246.4	1078.8	964.0	865.2	821.3	794.4	783.4	790.4
30°	1916.0	1839.2	1598.7	1318.3	1151.6	1011.9	883.2	831.3	838.3	847.2	854.2
32.5°	2042.8	1942.0	1659.6	1327.2	1139.6	1020.9	912.1	850.2	830.3	842.3	844.2
35°	2167.5	2044.8	1738.4	1384.1	1155.6	988.0	892.1	856.2	850.2	866.2	863.2
37.5°	2421.0	2260.3	1836.2	1400.1	1140.6	949.0	858.2	820.3	789.4	785.4	790.4
40°	2752.3	2536.7	1934.0	1393.1	1070.8	902.1	815.3	772.4	748.4	733.5	724.5
42.5°	2586.6	2370.1	1808.2	1337.2	986.0	818.3	771.4	733.5	702.5	683.6	678.6
45°	2768.3	2556.7	1840.2	1224.5	889.2	743.5	705.5	679.6	636.7	618.7	615.7
46°	2713.4	2473.9	1804.3	1189.5	842.3	711.5	679.6	652.6	620.7	595.8	593.8
47.5°	2513.8	2234.4	1698.5	1095.7	810.3	658.6	636.7	620.7	603.7	574.8	570.8
50°	2243.3	2029.8	1507.9	974.0	682.6	587.8	568.8	563.8	544.9	509.9	512.9
52.5°	2222.4	2015.8	1404.1	896.1	605.7	514.9	508.9	494.0	478.0	447.1	446.1
55°	1071.8	911.1	779.4	701.5	506.9	456.1	453.1	446.1	426.1	398.2	403.2
57.5°	507.9	442.1	382.2	405.2	398.2	400.2	402.2	401.2	378.2	340.3	348.3
60°	445.1	386.2	330.3	313.4	329.3	354.3	354.3	339.3	307.4	262.5	258.5
62.5°	429.1	370.2	319.3	296.4	304.4	319.3	311.4	287.4	255.5	214.6	212.6
65°	431.1	368.2	318.3	289.4	296.4	302.4	287.4	268.4	251.5	222.5	222.5
67.5°	440.1	376.2	322.3	286.4	291.4	295.4	281.4	267.4	257.5	235.5	237.5
70°	442.1	381.2	326.3	287.4	286.4	290.4	280.4	267.4	262.5	247.5	246.5
72.5°	442.1	385.2	322.3	280.4	278.4	280.4	274.4	267.4	266.4	257.5	255.5
75°	427.1	376.2	308.4	266.4	264.5	266.4	264.5	263.5	267.4	263.5	259.5
77.5°	412.1	367.2	298.4	255.5	252.5	251.5	250.5	251.5	257.5	254.5	248.5
80°	419.1	371.2	296.4	246.5	237.5	233.5	233.5	234.5	234.5	225.5	216.6
82.5°	431.1	378.2	286.4	229.5	214.6	207.6	209.6	216.6	219.5	212.6	205.6
85°	475.0	410.1	288.4	217.5	195.6	187.6	190.6	199.6	193.6	183.6	175.6
87.5°	494.0	421.1	282.4	199.6	181.6	178.6	178.6	183.6	179.6	163.7	156.7
90°	472.0	403.2	255.5	169.6	157.7	160.7	161.7	156.7	139.7	121.7	115.8
92.5°	442.1	377.2	236.5	155.7	139.7	138.7	137.7	134.7	121.7	101.8	97.8
95°	417.1	355.3	218.5	142.7	127.7	124.7	123.7	119.8	107.8	92.8	90.8
97.5°	363.2	310.4	198.6	131.7	114.8	112.8	111.8	106.8	95.8	84.8	83.8
100°	326.3	276.4	177.6	118.8	103.8	100.8	99.8	96.8	87.8	79.8	78.8
102.5°	296.4	253.5	164.7	108.8	92.8	88.8	88.8	86.8	81.8	76.8	76.8
105°	288.4	248.5	159.7	99.8	82.8	80.8	79.8	79.8	75.8	72.8	72.8
107.5°	253.5	217.5	137.7	88.8	74.8	72.8	72.8	72.8	71.9	70.9	71.9



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
110°	228.5	196.6	126.7	82.8	69.9	66.9	66.9	66.9	66.9	68.9	68.9
112.5°	203.6	176.6	116.8	78.8	64.9	61.9	59.9	58.9	57.9	61.9	62.9
115°	192.6	168.7	111.8	74.8	61.9	58.9	54.9	52.9	49.9	52.9	53.9
117.5°	181.6	159.7	109.8	73.8	59.9	54.9	50.9	48.9	44.9	47.9	47.9
120°	178.6	158.7	111.8	74.8	57.9	50.9	47.9	42.9	40.9	42.9	43.9
122.5°	164.7	146.7	104.8	69.9	54.9	48.9	44.9	36.9	35.9	38.9	38.9
125°	139.7	125.7	90.8	62.9	51.9	47.9	43.9	32.9	33.9	35.9	36.9
127.5°	122.7	110.8	82.8	60.9	51.9	48.9	40.9	28.9	31.9	34.9	35.9
130°	114.8	105.8	82.8	62.9	53.9	49.9	33.9	26.9	29.9	32.9	32.9
132.5°	111.8	104.8	84.8	66.9	55.9	47.9	27.9	24.9	27.9	29.9	29.9
135°	102.8	96.8	80.8	64.9	50.9	37.9	22.0	22.0	25.9	27.9	27.9
137.5°	90.8	85.8	72.8	59.9	44.9	28.9	16.0	19.0	22.0	24.0	24.0
140°	72.8	69.9	59.9	46.9	31.9	16.0	12.0	15.0	18.0	20.0	20.0
142.5°	51.9	49.9	41.9	29.9	19.0	7.0	8.0	11.0	14.0	16.0	16.0
145°	33.9	31.9	25.9	19.0	8.0	2.0	5.0	8.0	11.0	12.0	12.0
147.5°	21.0	20.0	16.0	9.0	3.0	2.0	2.0	6.0	8.0	9.0	9.0
150°	11.0	10.0	7.0	3.0	1.0	1.0	1.0	2.0	5.0	6.0	7.0
152.5°	3.0	2.0	2.0	1.0	1.0	1.0	1.0	1.0	1.0	2.0	3.0
155°	1.0	1.0	1.0	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0
157.5°	1.0	1.0	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	1.0	0.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)